

Partnership As An Effort To Care For Hypertension Through A Healthy Lifestyle

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Abstract

Kelurahan Sukamerindu as the location of community service. This is because Kelurahan Suka Merindu is classified as slums, densely populated, cases of hypertension and diabetes mellitus are high compared to other villages. Lurah, health devices and cadres actively participate in health programs. The purpose of community service activities is the implementation of case discovery activities, management and prevention of hypertensive patients in Bengkulu. Community service activities are carried out by registration and blood pressure checks, which are attended by 42 people. Furthermore, gymnastics activities in the form of healthy heart exercises, elderly exercises and Gernas exercises, from the results of measurement of blood pressure found one grade hypertension with blood pressure 140-159 / 90-99 mmHg as many as 15 people (35.7%). Counseling activities carried out by the lecture method followed by discussion and question and answer. Through community service activities, they know how to prevent hypertension through watermelon juice and know the benefits and can consume their own juice at home. Health socialization and promotion about the prevention and prevention of hypertension must be continued and can be an example for other villages and can be developed against the prevention and prevention of other non-communicable diseases, especially diabetes mellitus.

A. Introduction

Sukamerindu Village is located in Sungai Serut sub-district, Bengkulu Province. This village has KK 1481 as many as 5,849 people, with the most education is high school, the majority of jobs are traders. Clean and Healthy Living Behavior (PHBS) in Sukamerindu Village is quite good, especially the availability of latrines and clean water is 100% good. Sukamerindu Village, Sungai Serut District, Economic situation based on the livelihood of the majority as traders.

Hypertension and Diabetes Mellitus are non-communicable cases are high compared to other villages. This area is classified as a slum, densely populated by Lurah cases and its participation in active health programs as well as its health cadres. Blood pressure indicators; Normal with blood pressure 120-129/80-84 mmHg, Normal high with blood pressure 130-139/85-89 mmHg. Suggestive evidence was obtained for type 2 diabetes, smoking initiation and alcohol consumption with a higher hypertension odds, and longer sleep duration with a lower hypertension odds. This Mendelian randomization study identified high-density lipoprotein cholesterol, triglycerides, body mass index, alcohol dependence, insomnia, and educational level as causal risk factors for hypertension (van Oort et al., 2020).

According to a national survey conducted in 2018, the prevalence of hypertension in Indonesia is very high at 34.1%. Grade one hypertension is defined as blood pressure between 140 and 159 / 90-99 mmHg, Grade two hypertension as blood pressure between 160 and 179 / 100-109 mmHg, and Grade three hypertension as blood pressure greater than 180 / > 110 mmHg. Or around 70 million more Indonesian population

(Kusumawardani et al., 2018). Data on the 10 most diseases in Puskesmas in 2022 hypertension ranks 6th.as the following graph

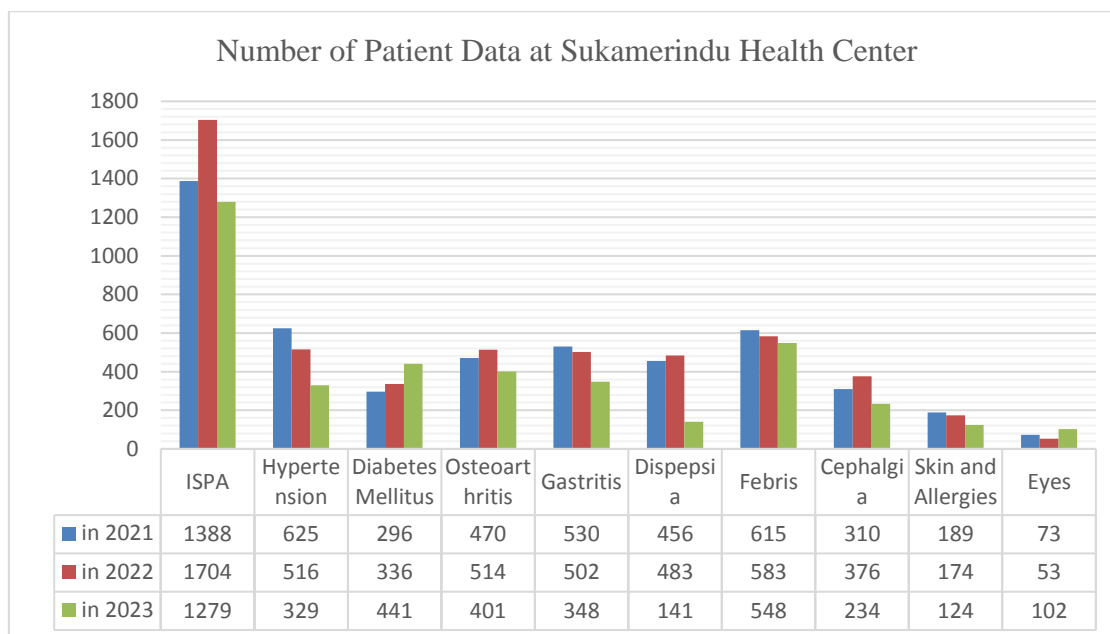


Figure 1. Ten most common diseases at Sukamerindu Health Center in 2021-2023

Hypertension that is slow to detect and not treated quickly and precisely, can cause various impacts such as heart rate that is too strong, bleeding through the nose, cramps in the limbs, headaches, unstable emotions and even cause death (Agustin et al., 2021). The conclusion from Abu et al. (2018), overall, patients had an understanding of hypertension, yet the majority were not informed that it is a chronic condition and may result in kidney disease. Extensive awareness of hypertension correlated with adopting healthy lifestyle behaviors such as reducing food intake for weight loss and cutting down on dietary salt.

Another impact of hypertension on the cardiovascular system, causing 9.4 million deaths or 89.6% of deaths per year as complications in the cardiovascular system starting from hypertension (Ellis et al., 2021). Treatment of hypertension in general can be done pharmacologically and nonpharmacologically, management of hypertension with a non-pharmacological approach as done using herbal ingredients (plants and fruits especially such as cucumber juice, star fruit juice and watermelon juice therapy (Fujie et al., 2022). Yesterday, Exercise, a high-fat diet, lowering salt intake, and herbal remedies—among which are plants like cucumber, garlic, chayote, celery, watermelon, bay leaf, and numerous other fruits and vegetables that can be used for herbal treatment—are additional nonpharmacological methods of treating hypertension.

Work and physical activity can affect blood flow in hypertensive patients. Regular physical activity and healthy food is one effort to maintain blood pressure in hypertensive patients to remain stable. Patients with hypertension who engage in mild physical exercise typically have higher blood pressure than those with hypertension. Due to a lack of physical activity, moderately active hypertension often has a higher heart rate frequency, which forces the heart muscle to beat more forcefully with each contraction. The stronger the contraction and the more frequently the heart muscle pumps blood throughout the body, the more pressure is placed on the arteries, raising blood pressure (Hardy & Urbina, 2021).

Education is an effort to increase the knowledge of the elderly related to the prevention and control of hypertension through activities Devotion To the community regularly, it is expected that the elderly will consciously follow the program that has been implemented regularly for the prevention of hypertension. Health counseling can also increase the knowledge of cadres and the public about hypertension (Suratun et al., 2022).

One of the substances that inhibits the release of renin in the kidneys is watermelon juice, which also contains potassium. Through its indirect stimulation of sympathetic nerves, potassium lowers blood

pressure by preventing sodium retention. Watermelon's high water content helps raise bodily fluid levels, which can help prevent renin from being released. This combination of water, potassium, and antioxidants has a diuretic effect in the kidneys and is able to lower blood pressure (Hera et al., 2023). Experts argue that consuming watermelon juice without sugar can help lower pressure from hypertension in the elderly. Juice watermelon to get a positive effect should be consumed with a frequency of giving 2 times a day julah every consumption recommended 300-350 grams (Rusdiawan & Habibi, 2020). The research result of Fadlilah & Sucipto (2021), consuming watermelon juice has an impact on lowering blood pressure in the elderly (p value 0.000 <0.05).

The purpose of this community service program is to carry out partnerships in the form of case discovery, management and prevention of hypertension in Sukamerindu Village, Gading Cempaka District, Bengkulu City.

B. Research Methods

Method Activities For the implementation of activities carried out by use Five methods are:: Data collection on health problems and hypertensive diseases. Data was obtained from pasen visits to Puskesmas and home visits by 10 students to 10 families per student collected 100 families on November 23-24, 2023 door to door to get residents with hypertension by measuring blood pressure along with PIS-PK and SMD data collection. The preparation of the POA on November 25-26, 2023 after the data is accumulated to make an activity plan for the preparation of a Plan Of Action (POA). Where POA is a set of activities that will be carried out to achieve activity targets or ways to determine the priority of problems, by looking at the level of urgency of a problem that is formulated together and the last stage is the preparation of POA (Pobas et al., 2023).

The next activity of the Village Community Deliberation (MMD) will be held on November 29, 2023 at the Sukamarindu Sub-district Office, which is attended by the Lurah, Head of RW/RT, CI Promkes cadres and Promkes students.

Implementation activities in the form of elderly gymnastics, blood pressure measurement, counseling, demonstration and giving watermelon juce were carried out in the yard of the Sukamerindu Health Center and were attended by 42 participant. Evaluation design The implementation of community service implementation criteria that will be the basic benchmark for achieving the success of the participant implementation team can also be measured from blood pressure checking services properly conducting counseling and welded Demonstration of making and giving.

C. Result and Discussion

The activity began with the identification of problems in the puskesmas and Home Visit through PIS-PK and SMD, then MMD was carried out in the village This activity aims to make the community more concerned about improving a Healthy Lifestyle Results Indicators It is hoped that people in Sukamerindu village can know how important the prevention and control of hypertension is. Following gymnastics with people affected by hypertension, do blood pressure checks and participate in counseling about hypertension and watermelon juice distribution. The results of MMD are contained in Plane od action (POA).

The next activity on Friday, December 1, 2023 starts at 7.00 a.m. at the Sukamerindu Health Center yard, followed by the elderly, the Puskemas Cadres of the village and lecturers and students of the Poltekkes of the Ministry of Health Bengkulu, the number of participants served amounted to 42 people, the activity began with doing joint gymnastics in the form of heart-healthy gymnastics, elderly gymnastics and gernas gymnastics typical of Bengkulu, with instructors of puskemas dader staff and students of Poltekkes kemenkes Bengkulu. Gymnastics is a form of physical activity that has long been an integral part of human life. With historical roots involving ancient traditions, gymnastics has evolved into more than just physical movement. Gymnastics reflects a deep understanding of the importance of maintaining a healthy body through structured physical activity. The importance of physical activity, especially in the context of gymnastics, lies in its positive impact on health. Gymnastics is not only an exercise, but also an effective way to prevent disease and improve overall health. Through purposeful movements, gymnastics helps maintain a healthy weight, optimize cardiovascular function, and increase endurance. Explaining about hypertension includes; understanding the causes of signs and symptoms of risk factors, how to prevent treatment and complex.



Figure 2. Gymnastics Activities

The results of the examination in blood pressure classification 1) Normal with blood pressure 120-129/80-84 mmHg 14 Or1ng (33.3%), 2) Normal high with blood pressure 130-139/85-89 mmHg 9 people (21.4%), 3) hypertension Grade one with blood pressure 140-159 /90-99 mmHg 15 people (35.7%), 4) hypertension Grade two with blood pressure 160-179/100-109 mmHg 3 people (7.1%) 5) hypertension Grade three with blood pressure >180/ >110 mmHg 1 person (2.4%), as illustrated below, the highest case of grade one hypertension is almost one-third of the number of participants who participated in gymnastics activities. this result is almost the same as before: Based on the degree of hypertension, the majority of respondents were in the Grade one category, totaling 22 people (66.7%) or more than half (Kurnianto et al., 2020).

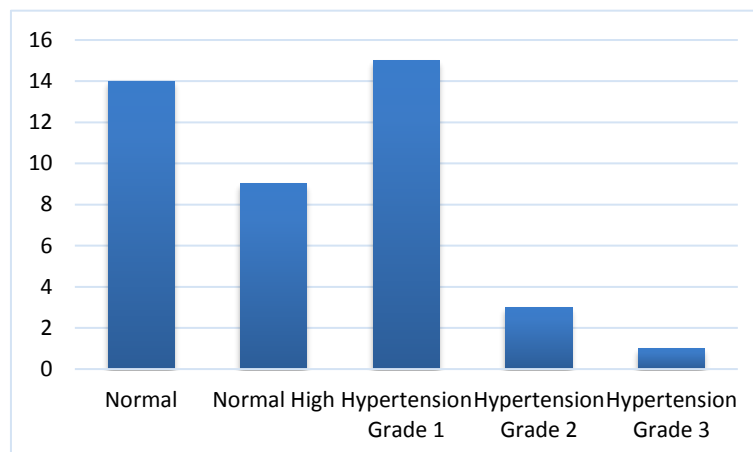


Figure 3. Classification of hypertension in residents examined

The next activity was high school gymnastics which was carried out on December 8, 2023 at the Sukamerindu Health Center yard which was attended by the elderly, cadres of community leaders, employees of the Sukamerindu Health Center, and students of the Bengkulu Ministry of Health Poltekkes. The seam carried out is in the form of heart-healthy gymnastics, elderly gymnastics and germs gymnastics. Gymnastics is a form of physical activity that has long been an integral part of human life. With historical roots involving ancient traditions, gymnastics has evolved into more than just physical movement. The background in gymnastics reflects a deep understanding of the importance of maintaining a healthy body through structured physical activity. The importance of physical activity, especially in the context of gymnastics, lies in its positive impact on health. Gymnastics is not only an exercise, but also an effective way to prevent disease and improve overall health. Through purposeful movements, gymnastics helps maintain a healthy weight, optimize cardiovascular function, and increase endurance.

Counseling is carried out after gymnastics as for the material provided in the form of understanding hypertension including its classification, causative factors, signs and behaviors, prevention, tips on controlling hypertension, diet, lifestyle and complications. The material is explained using leflet media as in figure 4.



Figure 4. Hypertension leaflet

Educational activities about hypertension in the form of lectures lasted for about half an hour according to the time agreement with the previous participants. The participants who attended were the elderly and their families, cadres and officials of the Sukamerindu village totaling 42 people they mingled with employees of the Puskesmas and students of the Bengkulu Poltekkes. The process is in the form of discussion and questioning answer. The assessment of educational success was assessed during the discussion session, participants were randomly asked to answer each question given originally 3 questions followed by 3 more questions in total to 6 questions. Each question can be answered by participating participants to answer the question. The response of the participants also looked very good, participants said that the activities given were very interesting and useful in adding knowledge. The elderly cadres also gave a good appreciation for this activity (Badriyah & Syafiq, 2017). The findings of this study indicate that the rise in heart rate is likely attributed to the impact of watermelon on blood circulation, possibly through the influence of l-citrulline, the active component, on blood vessel function, thereby boosting heart activity. Notably, there was no notable alteration observed in blood pressure levels (Bhlom et al., 2020). The research results analyzed with the Wilcoxon Signed Rank Test show that watermelon juice can reduce blood pressure in hypertensive patients, as indicated by a $p\text{-value} < \alpha$ ($0.00 < 0.05$) (Fujie et al., 2022).

Demonstration of making and giving watermelon juice to prevent hypertension and reduce blood levels, the activity was carried out after a gymnastics health examination and delivery of counseling materials. The process of making juice is carried out on site to keep the fruit fresh. People who come can know how to prevent hypertension through watermelon juice, know the benefits and can consume their own juice at home with a frequency of twice a week with a dose of 2-3 glasses per day of consumption.



Figure 5. Watermelon Juice feeding

D. Conclusion

This community service activity was carried out by case discovery, management and prevention of hypertension patients in Sukamerindu Village, Gading Cempaka District, Bengkulu City. Followed by 42 people with activities starting with gymnastics in the form of healthy heart gymnastics, elderly gymnastics and gernas gymnastics, the next activity was blood pressure measurement with the results found Grade one hypertension with blood pressure 140-159 / 90-99 mmHg 15 people (35.7%), counseling activities began with lectures followed by discussion and question and answer, Education is assessed during the discussion

session, participants are randomly asked to answer each question each question can be answered by participants who participate to answer questions. The response of the participants also looked very good.

Making and administering watermelon juice to prevent hypertension and reduce blood levels. People who come can know how to prevent hypertension through watermelon juice, know the benefits and can consume the juice themselves at home.

Health socialization and promotion regarding the prevention and management of hypertension must continue and can be an example for other villages and can be developed for the prevention and control of other non-communicable diseases, especially Diabetes mellitus, Heart disease and cancer whose cases are increasing.

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